MASIMO.007C3

JUL 1 9 1999

RECEIVED

**PATENT** 

IN THE UNITED STATES PATENDAND TRADEMARK OFFICE TC 3700 MAIL ROUTE

Applicant	:	

M. Diab et al.

Appl. No.

09/111,604

Filed

July 7, 1998

For

SIGNAL

**PROCESSING** 

**APPARATUS** 

Examiner

E. Winakur

Group Art Unit 3736

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on

July 14, 1999 (Date)

Stephen C. Jensen, Deg. No. 35,556

**AMENDMENT** 

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

In response to the Office Action mailed May 14, 1999, please amend the claim as follows:

39. (Amended) A method for measuring saturation of a blood constituent in a patient comprising the steps of:

irradiating said patient with electromagnetic radiation of at least three discrete, different wavelengths;

sensing an intensity of said radiation for each of said [wavelength] wavelengths after it passes through a portion of said patient to produce first, second, and third intensity signals;

representing each of said intensity signals as a function of concentration, the wavelength corresponding to the intensity signal, and a time-variable motion term corresponding to motion noise, said motion terms being proportional to one another for each of said intensity signals; and

solving the functions to obtain a value for said saturation,
wherein each of said functions includes a plurality of coefficients related to the
wavelengths, the coefficients of said third function being determined based upon the

6